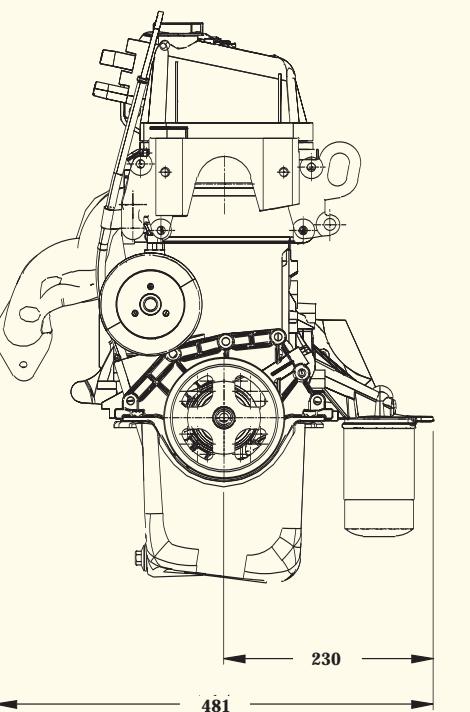
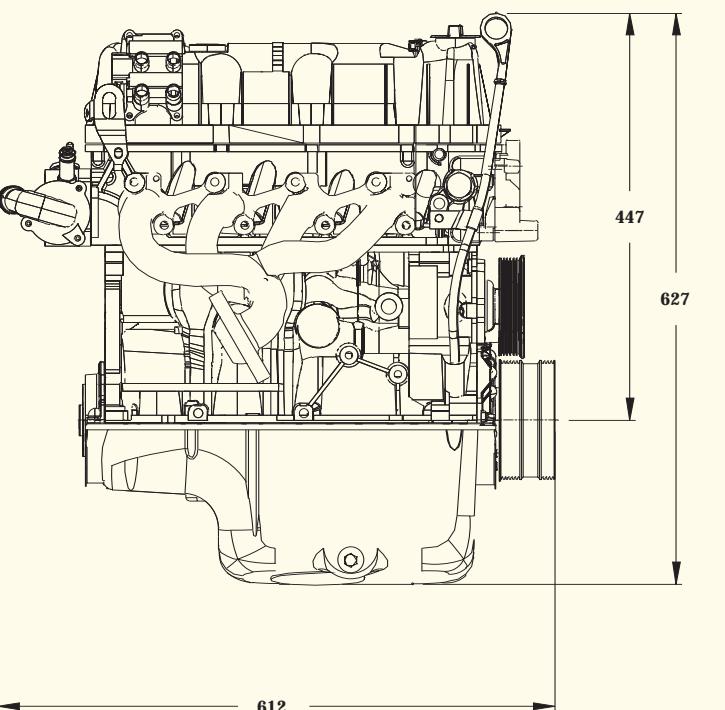


Installation Drawings

Front End View



Right Side View



Measurements mm



Contact Ford Power Products or your local
FPP distributor for additional information.

Corporate Web Site: www.fordpowerproducts.com

Ford Power Products
15700 Lundy Parkway Drive
Suite 200
Dearborn, Michigan 48126
Phone: 1-800-833-4773
Fax: 1-313-619-2600

Ford Power Products
Trafalgar House, Station Way
Basildon, Essex, SS16 5XX, England
Phone: 44 (0)1268 704181
Fax: 44 (0)1268 702121

TSG-416

Base Industrial Engine EFI

1.6-Litre 4-Cylinder



Powerful
Performance
from one
source.



Power
Products

TSG-416

Base Industrial Engine EFI

1.6-Litre 4-Cylinder



Options

Flywheel Housing

- SAE #5M with feet and side pads

Flywheels

- Flat face
- SAE 7.5" O/C

Aluminum Intake Manifold

Engine-Mounted Cooling Fans

- 14.9" (380 mm) diameter suction
- 14.9" (380 mm) diameter pusher

Front Engine Supports (without Radiator)

- Single Foot
- Dual Foot

90 Amp Generator

LH and RH Mounted Starters

- Parts conform to SAE J1171 (marine) specifications

Electronic Control Modules (refer to FPP-192-583)

- Ignition Control Module (ICM)
- Engine Performance Module (EPM)

Wiring Harnesses

- ICM application
- EPM application

Electronic Throttle Control

Discrete Speed Switch

Variable Speed Foot Pedal

Variable Speed Hand Control

Gaseous (LPG, NG, LPG/NG) Fuel Delivery System

Gasoline Fuel Injection (EFI/Sequential Port) System

Exhaust Pipe with Rain Cap

Three-Way Catalyst (available 2003)

Emissions Information

EPA and ARB emission-certified packages available.
Contact FPP or local distributor for specific details.

Warranty

Contact FPP or local distributor for warranty terms.

Specifications

Engine Type.....	2V, SOHC, I-4
Bore and Stroke.....	3.23 in x 2.97 in (82.1 mm x 75.5 mm)
Displacement.....	1.6 Litre (97.4 CID)
Compression Ratio.....	9.5:1
Oil Capacity.....	4.4 Qts (4.2 litres)
Net Weight.....	200 Lbs (90.7 Kgs)
Dimensions.....	L 24.1" x W 18.9" x H 24.7" (612 mm x 481 mm x 627 mm)

Gasoline (corrected per SAE J1995)

Fuel Specification.....	87 A.I.I.
Rated Power @ 3600 RPM.....	Intermittent: 63 HP (47 kW) Continuous: 53 HP (40 kW)
Peak Torque @ 3200 RPM.....	Intermittent: 93 Ft. Lbs. (126 Nm) Continuous: 79 Ft. Lbs. (107 Nm)
Power @ 1800 RPM.....	Intermittent: 29 HP (22 kW) Continuous: 24 HP (18 kW)

Natural Gas (corrected per SAE J1995)

Fuel Specification.....	1050 BTU/FT3
Rated Power @ 3600 RPM.....	Intermittent: 52 HP (39 kW) Continuous: 44 HP (33 kW)
Peak Torque @ 3200 RPM.....	Intermittent: 78 Ft. Lbs. (106 Nm) Continuous: 66 Ft. Lbs. (89 Nm)
Power @ 1800 RPM.....	Intermittent: 26 HP (19 kW) Continuous: 22 HP (16 kW)

Liquefied Petroleum Gas (corrected per SAE J1995)

Fuel Specification.....	ASI Grade HD-5
Rated Power @ 3600 RPM.....	Intermittent: 57 HP (43 kW) Continuous: 48 HP (36 kW)
Peak Torque @ 2800 RPM.....	Intermittent: 86 Ft. Lbs. (117 Nm) Continuous: 73 Ft. Lbs. (99 Nm)
Power @ 1800 RPM.....	Intermittent: 26 HP (20 kW) Continuous: 22 HP (17 kW)

Standard Features/Benefits

Single Overhead Camshaft (SOHC) Featuring Single Sleeve Type, Chain Driven Camshaft with Hydraulic Tensioning System for reduced engine noise and friction, increased performance, durability and service-free chain tensioning

Low Friction Roller Finger Follower Valve Train for minimal friction, improved reliability and increased torque

Low Pressure Die Cast Aluminum Cylinder Head for improved durability and decreased weight

Alternate-Fuel-Ready Valve Train Components for alternate fuel operation

Cast Iron High Compression Swirl (HCS) Cylinder Block for reduced emissions and improved combustion efficiency

Piston Cooling Jets for increased performance and durability

Integrated Knock Sensor for improved engine protection and increased engine durability

Nodular, Graphite Cast Iron Crankshaft with Five Main Bearings for increased strength and durability

Cast Iron Exhaust Manifolds for Off-Highway Market for increased engine performance and durability

Polyamid Plastic Camshaft Cover for corrosion resistance and reduced noise

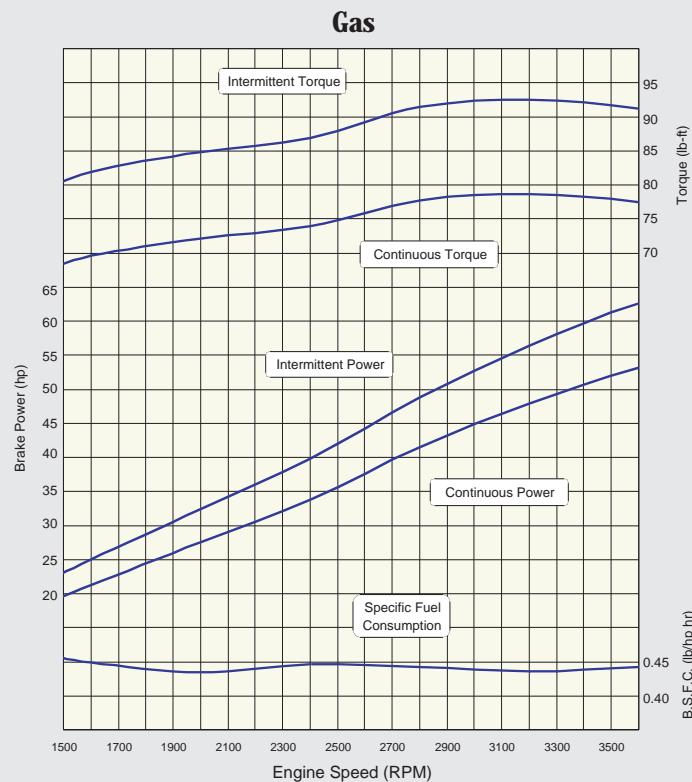
Coil Assembly Electronic Ignition System with Cam and Crank Shaft Position Sensors for reliable and effective spark delivery

Gasoline Sequential Port Fuel Injection ensures controlled fuel delivery throughout the various engine speeds, providing increased performance and reducing emissions

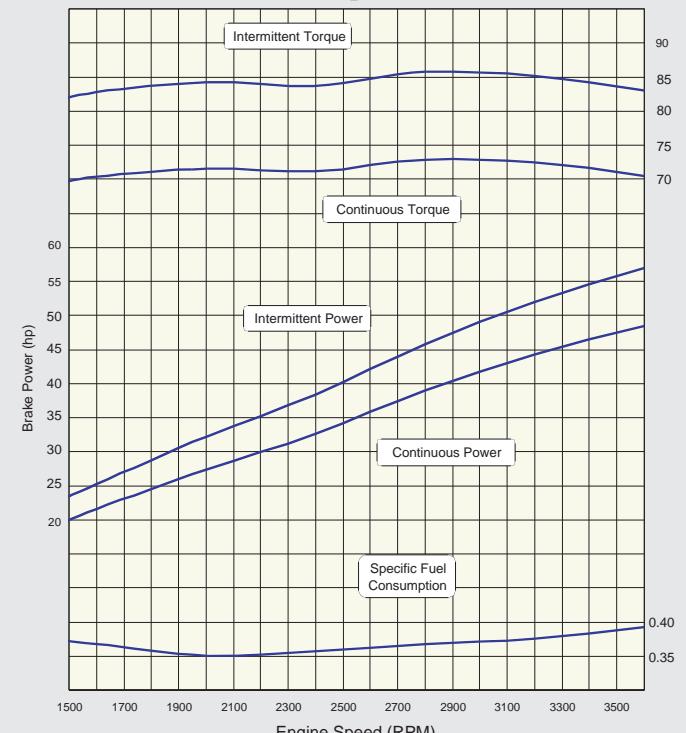
Closed-Loop Fuel Control for improved emissions control

Next Generation Governing Using the Latest DC, Stepper-Motor Technology for accurate, dependable and reliable speed control

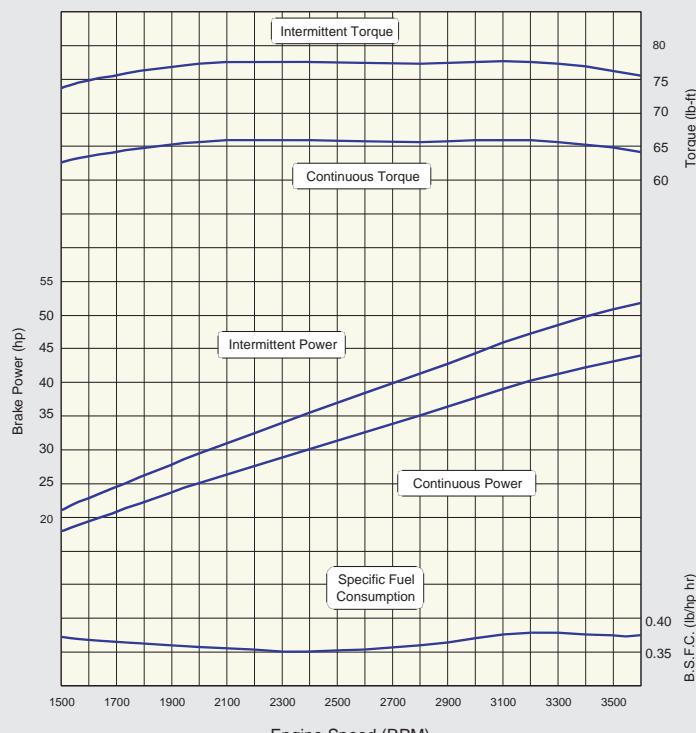
Power Curves (corrected per SAE J1995)



Propane



Natural Gas



Power
Products

Specifications are subject to change without notice.

Above power curves utilized the Ford Power Products EPM and emissions certified package.